

Applicants: SHEMESH, Yair, et al.  
Serial No.: 10/810,685  
Filed: March 29, 2004  
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### REMARKS

Applicants respectfully request reconsideration of the above-identified application in view of the following remarks.

#### Status of Claims

Claims 1-39 have been canceled herein without prejudice or disclaimer. New Claims 40-57 have been added. It is respectfully submitted that new Claims 40-57 are similar in subject matter to Claims 1-17 of Invention I which was elected in a Response to Restriction Requirement dated February 23, 2007 and do not require a further search. It is respectfully submitted that no new matter has been added.

#### Claim Rejections

##### 35 U.S.C. § 103 Rejections

In numbered paragraphs 1-8 on pages 2-14 of the Office Action, the Examiner rejected Claims 1 and 3-4 under 35 U.S.C. § 103(a) as being unpatentable over Dexter (US Patent No. 6,654,595) in view of Nguyen, et al. (US Patent No. 6,801,585) and Cook, et al. (US Publication No. 2007/0015,471). The Examiner also rejected Claims 2 and 6-8 under 35 U.S.C. § 103(a) as being unpatentable over Dexter in view of Nguyen, Cook, and Dujmenovic (US Patent No. 6,980,787). The Examiner also rejected Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Dexter in view of Nguyen, Cook, and Pigeon (US Patent No. 5,436,938). The Examiner also rejected Claims 9-11 under 35 U.S.C. § 103(a) as being unpatentable over Dexter in view of Martinson, et al. (US Patent No. 5,446,923). The Examiner also rejected Claims 12-13 under 35 U.S.C. § 103(a) as being unpatentable over Dexter in view of Martinson and Dujmenovic. The Examiner also rejected Claims 14-16 under 35 U.S.C. § 103(a) as being unpatentable over Dexter in view of Martinson and Kluge, et al. (US Patent No. 7,085,548). The Examiner also rejected Claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Dexter in view of Martinson and Nguyen.

Applicants have herein canceled Claims 1-17 thereby rendering their rejection moot. Accordingly, it is respectfully submitted that the rejections of Claims 1-17 under

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35 U.S.C. § 103(a) be withdrawn. Nevertheless, Applicants discuss below how Claims 40-57 are patentable over the prior art of record.

New Claim 40 includes, inter alia, "producing a first periodic logic signal having relatively high spectral content at three times the local frequency and relatively low spectral content at other frequencies, from the first periodic signal and the delayed versions thereof using logic operations, wherein said first logic signal comprises eight periodic sections, and wherein said first, third, fourth, and fifth sections are at a first logic level and said second, fifth, seventh, and eighth sections are at a second logic level opposite said first logic level" It is respectfully submitted that none of Dexter, Cook, Nguyen, Dujmenovic, Martinson, Pigeon, or Kluge, alone or in combination, teach a signal having these properties.

New Claim 49 includes, inter alia, "producing a periodic differential output signal having a dominant spectral component at three times a local frequency less a center frequency by mixing three periodic differential signals having the local frequency and a periodic differential input signal having the center frequency in a circuit comprising four branches, wherein each branch comprises three serially connected transistors, and wherein the second signal and the third signal are delayed from the first signal." It is respectfully submitted that none of Dexter, Cook, Nguyen, Dujmenovic, Martinson, Pigeon, or Kluge, alone or in combination, teach a signal having these properties.

New Claim 54 includes, inter alia, "producing a periodic differential output signal having a dominant spectral component at three times a local frequency less a center frequency by mixing three periodic differential signals having the local frequency and a periodic differential input signal having the center frequency in a circuit comprising a ring having four branches connected by nodes, wherein each branch comprises three stacked transistors, and wherein the second signal and the third signal are delayed from the first signal". It is respectfully submitted that none of Dexter, Cook, Nguyen, Dujmenovic, Martinson, Pigeon, or Kluge, alone or in combination, teach a signal having these properties.

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Therefore, it is respectfully asserted that new Claims 40, 49, and 54 and the claims dependent therefrom are patentable over the prior art of record.

### CONCLUSION

In view of the foregoing amendments and remarks, Applicant submits that the pending claims distinguish over the prior art of record and are in condition for allowance. Favorable consideration and passage to issue are therefore respectfully requested.

The Examiner is invited to telephone the undersigned to discuss any still outstanding matters with respect to the present application.

No fees are believed to be due in connection with this paper. However if any such fees are due, please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,

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